



**Health Services**  
LOS ANGELES COUNTY

July 6, 2010

**Los Angeles County  
Board of Supervisors**

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First District

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Third District

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**Michael D. Antonovich**  
Fifth District

The Honorable Board of Supervisors  
County of Los Angeles  
383 Kenneth Hahn Hall of Administration  
500 West Temple Street  
Los Angeles, CA 90012

Dear Supervisors:

**AUTHORIZE PURCHASE OF A CENTRAL ENTERPRISE STORAGE  
AREA NETWORK  
ALL SUPERVISORIAL DISTRICTS  
(3 VOTES)**

CIO RECOMMENDATION: APPROVE (X) APPROVE WITH  
MODIFICATION ( ) DISAPPROVE ( )

**SUBJECT**

Authorize a fixed asset purchase of a central enterprise Storage Area Network for the Department of Health Services Virtualization and Records Retention System.

**IT IS RECOMMENDED THAT YOUR BOARD:**

Authorize the Internal Services Department (ISD), as the County's Purchasing Agent, to proceed with the acquisition and installation of a central enterprise Storage Area Network (SAN) for the Department of Health Services (DHS) with a total cost of \$549,997 because this purchase request will exceed the \$250,000 fixed asset threshold established by your Board.

**PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION**

Approval of this action will enable DHS to acquire an EMC NS480 SAN to replace the existing HP/EVA6000. In order to increase storage capacity as required to maintain virtualization environments, support existing clinical and business records retention requirements, and accommodate projected future growth of 36 months, the existing equipment needs to be replaced. The EMC NS480 consists of disk drives that are expandable within the same chassis and will be capable of supporting future growth requirements beyond the current design configuration being purchased.

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[www.dhs.lacounty.gov](http://www.dhs.lacounty.gov)

*To improve health  
through leadership,  
service and education*



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The SAN supports Information Technology (IT) mission critical virtualization of consolidated clinical and business enterprise systems. The equipment enables DHS to maintain Health Insurance Portability and Accountability Act (HIPAA) requirements associated with patient and clinical records retention supporting all DHS business and Hospital IT operations. This acquisition is vital toward maintaining the integrity of the DHS Central Data Center environment systems and services. The SAN supports DHS IT mission critical virtualization and health care data retention operations. Current storage utilization, associated with the existing central enterprise SAN complex (HP/EVA6000), is at 85 percent of capacity; it is anticipated that the current SAN capacity will support existing operations for two to five months. The enterprise SAN is being used by enterprise and business clinical applications supporting operations for DHS Hospitals. Additional County clinical services (Virtualized Applications, Operating Room Scheduling and Patient Referral Systems processing) continue to drive increased requirements for additional storage capacity; services include:

ORSOS (Operating Room Scheduling Office System)	Virtual Technologies
PRS (Patient Referral System)	Vision Share (Medical Billing)
EDR (Electronic Data Repository)	Others
Repository/Data Analytics	

The storage consolidation of multiple virtual and physical environments, as stated above, will yield additional economies of scale savings inherent of sharing resources; Virtualization technology enables the reduction of physical server operations by a ratio of 15-to-1 (consolidates 15 physical machines into 1); the SAN supports is an integral component of this technology. Furthermore, through the reduction of servers, the data center requires less environmental infrastructure (power & cooling). This equipment supports green operational practices by reducing the DHS carbon footprint.

#### **Implementation of Strategic Plan Goals**

The recommended action supports Goal 4, Health and Mental Health, of the County's Strategic Plan.

#### **FISCAL IMPACT/FINANCING**

The total aggregate cost for the SAN equipment components and a three-year equipment maintenance agreement is \$549,997. Funding is included in Health Services Administration's Fiscal Year 2009-10 Final Budget.

#### **FACTS AND PROVISIONS/LEGAL REQUIREMENT**

On October 16, 2001, your Board approve the classification categories for fixed assets and new requirements for major fixed asset acquisitions requiring County departments to obtain Board approval to purchase or finance equipment with a unit cost of \$250,000, or greater, prior to submitting their request to ISD. Clinical and business

records must be retained for seven years to ensure compliance with DHS Policy 881 and other mandated governmental, and HIPAA regulations. The EMC NS480 SAN will support continued compliance of these mandates.

The County's Chief Information Officer recommends approval of this request (see attached analysis).

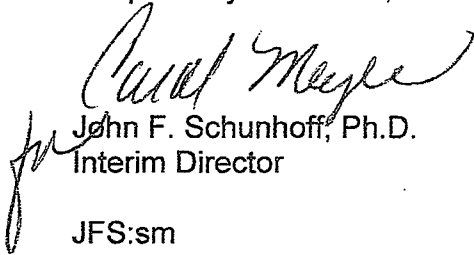
**CONTRACTING PROCESS**

This is a commodity purchase under the statutory authority of the County Purchasing Agent. The purchase will be requisitioned through, and accomplished by the Purchasing Agent in accordance with the County's purchasing policies and procedures, established by ISD.

**IMPACT ON CURRENT SERVICES (OR PROJECTS)**

If the equipment is not replaced the equipment will reach capacity and no longer support continued data retention operations. The resulting impact will severely compromise DHS' ability to maintain government mandated HIPAA requirements. Furthermore, critical strategic virtualization of critical applications schedules will be negatively impacted due to lack of storage capacity. As stated, the current virtualization storage equipment (EVA 6000), is at 85 percent of capacity; it is anticipated that the current capacity will be reached in two to five months; Hospital facilities will no longer be able to maintain critical data storage and HIPAA data retention requirements in support of ongoing patient treatment.

Respectfully submitted,

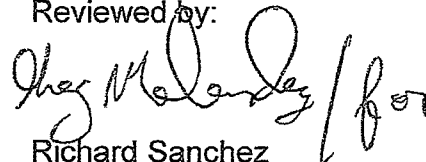
  
John F. Schunhoff, Ph.D.  
Interim Director

JFS:sm

Attachment

c: Chief Executive Office  
County Counsel  
Executive Office, Board of Supervisors  
Internal Services Department

Reviewed by:

  
Richard Sanchez  
Chief Information Officer

## CIO ANALYSIS

### DEPARTMENT OF HEALTH SERVICES REQUEST TO AUTHORIZE PURCHASE OF A CENTRAL ENTERPRISE STORAGE AREA NETWORK

CIO RECOMMENDATION: ☒ APPROVE ☐ APPROVE WITH MODIFICATION  
☐ DISAPPROVE

**Contract Type:**

☐ New Contract ☐ Contract Amendment ☐ Contract Extension  
☐ Sole Source Contract ☒ Hardware Acquisition ☐ Other

New/Revised Contract Term: Base Term: 3 Yrs. # of Option Yrs: N/A

**Contract Components:**

☐ Software ☒ Hardware ☐ Telecommunications  
☒ Professional Services

**Project Executive Sponsor:** John F. Schunoff, Ph.D, Interim Director, DHS

**Budget Information :**

Y-T-D Contract Expenditures	\$ 0
Requested Contract Amount	\$549,997
Aggregate Contract Amount	\$549,997

**Project Background:**

Yes	No	Question
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is this project legislatively mandated?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is this project subvented? If yes, what percentage is offset?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is this project/application applicable to (shared use or interfaced) other departments? If yes, name the other department(s) involved.

**Strategic Alignment:**

Yes	No	Question
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is this project in alignment with the County of Los Angeles Strategic Plan?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is this project consistent with the currently approved Department Business Automation Plan?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the project's technology solution comply with County of Los Angeles IT Directions Document?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the project technology solution comply with preferred County of Los Angeles IT Standards?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	This contract and/or project and its milestone deliverables must be entered into the Information Technology Tracking System (ITTS).

**Project/Contract Description:**

Request for Board approval to purchase and install information technology equipment to support the Central Enterprise Storage Area Network (SAN) system for the Department of Health Services' (DHS) Virtualization and Records Retention System.

**Background:**

DHS intends to purchase an EMC NS480 disk storage array, with three years of equipment maintenance services, to replace an existing HP EVA6000 array that is quickly running out of capacity. The equipment will support compliance with the Health Insurance Portability and Accountability Act (HIPAA) and other federally mandated regulations required for patient and clinical records.

**Project Justification/Benefits:**

This acquisition will allow DHS sufficient SAN capacity to proceed with their server virtualization project and Records Retention System requirements and to repurpose the smaller capacity HP/EVA SAN to support their test and development needs. DHS estimates at the current storage utilization of 85% that the capacity will be exceeded within two to five months.

The new SAN equipment is also fully compatible with the existing SAN supporting the Hospital Picture Archiving and Communication System (PACS) purchased last fiscal year. The IBM DS8100 storage equipment, formerly used for PACS, will be traded-in as part of this purchase.

The server virtualization project is the biggest driver of SAN growth, due to the consolidation of disk storage from many physical servers. The additional capacity is also needed to support the requirements of many enterprise clinical applications such as the Patient Referral System (PRS) and the Operating Room Scheduling System (ORSOS).

**Project Metrics:**

The overall success of the acquisition and installation of this equipment can be measured by the increased archival storage capacity, ease of maintenance of a centralized Storage Area Network and savings that will be realized over the long-term by the elimination of multiple stand-alone SAN systems at the facilities impacted by this purchase.

**Impact on Service Delivery or Department Operations, If Proposal Is Not Approved:**

As the shared storage infrastructure for all DHS HSA virtualization efforts, sufficient data storage capacity is required to proceed with the virtualization project. Cost savings are achieved through "economies of scale" and by eliminating the many isolated pools of unused storage that occur when disk storage is attached directly to physical servers.

**Alternatives Considered:**

The DHS strategy to consolidate their enterprise SAN environment and to pursue virtualization of computer servers is consistent with the County's adopted strategic direction relating to Storage Area Network equipment and software technologies, so consideration of other alternatives was not necessary. Further, although the equipment being purchased by DHS for this purpose is brand-specific, it will be acquired by DHS through a highly competitive bid process, resulting in the best price and highest value possible for the County.

**Project Risks:**

No significant risks related to this proposed purchase have been identified.

**Risk Mitigation Measures:**

No risk mitigation measures are deemed necessary.

**Financial Analysis:**

The total cost contemplated for the SAN System equipment and a 3-year equipment maintenance services component is \$549,997. Funding is included in HSA Fiscal Year 2009-10 Final Budget

**CIO Concerns:**

None.

**CIO Recommendations:**

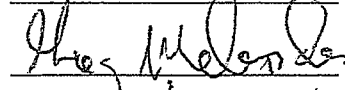
The Chief Information Office recommends approval of this purchase.

**CIO APPROVAL**

Date Received: June 11, 2010

Prepared by: Tom Travis

Date: June 15, 2010

Approved: 

Date: 6/24/2010 